



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C3-4-4
Job Sheet 179670



176674

Part No: C3-4-4

Job Qty: 4 ea

Part Name: Load Beam



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/20/18

Job Tracking No:

Due Date: 7/11/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG C3-4-4A/C3-4-4KA Rev 10 IPP Rev A 18.03.02 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea	7/11/18	7/11/18	0.00	0.00	Start Up Waterjet2		OK 18/06/27
100	Waterjet	4 pcs	7/11/18	7/11/18	0.08	0.67	Waterjet 2 OMAX		OK 18/06/27
120	CNC Vertical Machining	4 pcs	7/11/18	7/11/18	2.00	2.00	MORI NV5000-1		Not require PL
130	QC	4 pcs	7/11/18	7/11/18	0.00	0.00	QC2 Machining-5		Not require PL
140	QC	4 pcs	7/11/18	7/11/18	0.00	0.00	QC8 Machining-5		Not require PL
150	Outsource	4 pcs	7/11/18	7/11/18	0.00	0.00	Outsource1		OK 17 Jan 2019
152	Outsource	4 pcs	7/11/18	7/11/18	0.00	0.00	Outsource15		
160	Packaging	4 pcs	7/11/18	7/11/18	0.00	0.00	Packaging2		JAN 17 2019
170	QC	4 pcs	7/11/18	7/11/18	0.00	0.00	QC6		
180	Packaging	4 pcs	7/11/18	7/11/18	0.00	0.00	Packaging3-2		
190	QC21-SA	4 Ea	7/11/18	7/11/18	0.00	0.00	QC21		JAN 7 1 2019

Part Op 100 - 1-Cut C3-4-4 blank (CANAM FOLDER) Dwg Rev: 10 Prog Rev: 10 2-Deburr if necessary
Descriptions: 120 - 1-Machine as per folio F0286 FOLIO REV: DWG REV: 2-Deburr

MACHINE ENGRAVE AS PER DWG

150 - 1-Issue P/O to Metcore ; P/O RC 53-56 2-Bead blast 3- Certificate of Conformity is required

NOTE DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech***

152 - Issue P/O to Groupe Altech: P/O -Nickel plate, QQ-N-290, Class 2, Grade C -Nickel Plate .0009-.0011 - Certificate of Conformity is required

GA 192

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140-S-1.000X10.000	AlSi 4140 Steel Sheet/Plate	1.0400 ft (.26 ea)	90-Start up Operation	5071987

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140-S-1.000X10.000	1	6	0

Part Specifications

Specifications could not be found.

WORK ORDER NON-CONFORMANCE / UPDATE



QA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table border="0"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :				QTY Effective :		MRB (QSI042) Approval																			
Descrip _____																									
Completed By _____																									
Lead hand / Supervisor Approval Verification _____																									
QC / QA Coordinator Approval _____																									

Root Cause

Environment	☐	No	☐
Design	☐	Operator	☐
Doc/Data	☐	Customer	☐
Equip/Tooling	☐	Supplier	☐
Handling/Pre	☐	Training	☐
Material	☐	Use for Testing	☐
Internal Transport	☐	Poor Information	☐
Tribal Knowledge	☐	Rushing	☐
LOA	☐	Product Improvement	☐
Substation	☐	Process Improvement	☐
Past Expiry Date	☐	Manufacturing Process	☐
Misidentified	☐	Past Due	☐

OTHER : _____

Dart Aerospace Ltd.
 1270 Aberdeen Street
 Huron, Ontario N6A 1K7
 TEL: 519 832-6200
 Email: sales@dartaero.com
 www.dartaero.com

Container No: S085034
 Part: C3-4-4
 Job No: 179670
 Serial No/Batch: S085034
 Revision: 10
 Inspector:
 Exp Date:
 Instructions:

Date: 06/27/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

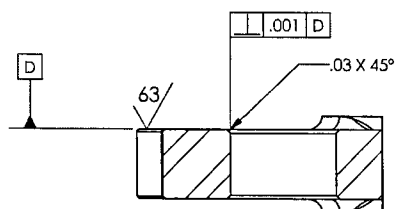
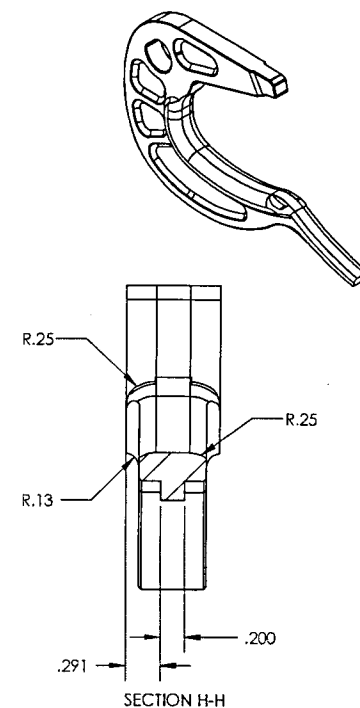
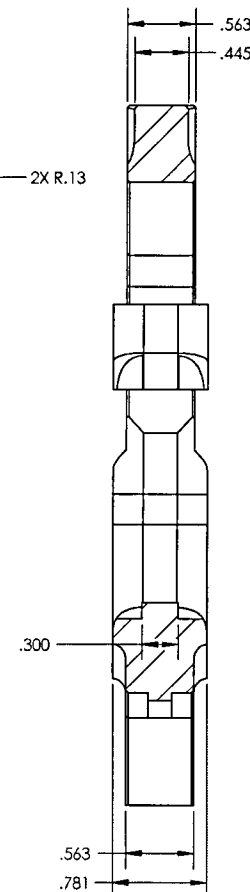
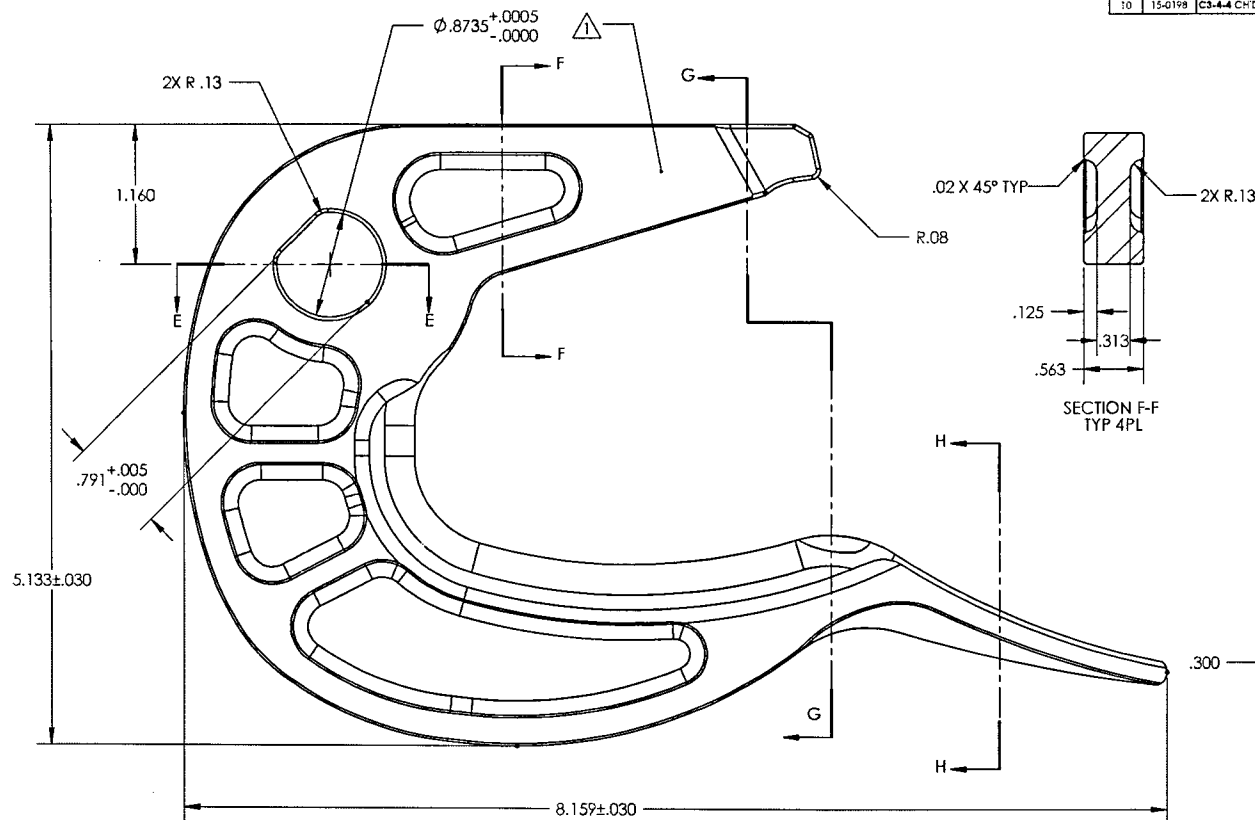
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
6		CH'D MATERIAL FROM 4340, CH'D RADIUS FROM 2X R.095 TO 2X R.13, CH'D FILLET RADIUS AT END OF LOAD BEAM FROM .043 TO .125	8/8/2012	PJC
8	14-0106	ADDED MACHINE ENGRAVE NOTE.	8/6/2014	DJN
10	15-0198	C3-4-4 CH'D DIM WAS 8.16 IS 8.159 ±.030, WAS 5.13 IS 5.133 ±.030, DELETED DIM R.25.	8/27/2015	DPD
				APPROVED
				SE
				RW
				JAG



C3-4-4
LOAD BEAM

NOTES:

1. MACHINE ENGRAVE BATCH NUMBER.
2. NICKEL PLATE AFTER PART HAS BEEN ASSEMBLED WITH TRUNNION C3-4-2.
3. USE DXF PROFILE FOR CONTOURS.

		TITLE C3 LOAD BEAM ASSEMBLIES	
		REV 10	
DWG NO. C3-4-4A / C3-4-4KA		REV 10	
MAT'L 4140/41402		DRAWN BY: APICAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPROVED <i>[Signature]</i>	
XXX ± .005 XX ± .01 X ± .1		FINISH RC 53-56	
1. BREAK ALL SHARP EDGES .015 X 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		SPEC USED ON MODEL	
SCALE 1:1		DATE 10/31/2001	
		SHEET 5 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				
								Completed By
								Lead hand / Supervisor Approval Verification
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Root Cause		FAULT CATEGORY						
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____		



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO041619



Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO041619

PO Date: 11/6/18

Due Date: 1/18/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone: *Revision*

Ship To:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	184313	C3-4-4K	Load Beam	Firmed	-	1/18/19	8 pcs	0 pcs	8 pcs	\$188.38/pcs	\$1,507.04
Line Item Note Machining Only <i>8x JAN 17 2019</i>											
2	177122	C3-4-4	Load Beam 1-Issue P/O to Metcore ; P/O RC 53-56 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	1/18/19	6 pcs	0 pcs	6 pcs	\$199.72/pcs	\$1,198.32
Line Item Note Machining Only <i>6x JAN 17 2019</i>											
3	184312	C2-4-4	Load Beam - C2 Hook 1-Issue P/O to Metcore ; P/O RC 53-56 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	1/18/19	4 pcs	0 pcs	4 pcs	\$161.00/pcs	\$644.00
Line Item Note Machining Only <i>4x JAN 17 2019</i>											
4	185851	C2-4-4	Load Beam - C2 Hook 1-Issue P/O to Metcore ; P/O RC 53-56 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	1/18/19	6 pcs	0 pcs	6 pcs	\$161.00/pcs	\$966.00
Line Item Note Machining Only <i>6x JAN 17 2019</i>											



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PURCHASE ORDER

PO041619



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5	179670	C3-4-4	Load Beam 1--Issue P/O to Metcore ; P/O _____ RC 53-56 2-Bead blast 3- Certificate of Conformity is required	Firmed	-	1/18/19	5 pcs	0 pcs	5 pcs	\$199.72/pcs	\$998.60
Grand Total:											\$5,313.96

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

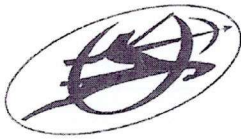
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 1/17/19 1:19 PM dart.Lussier.Patrick



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd. Unit C
Eugene, Oregon 97402
Phone: (541) 780-6938
Fax: (458) 215-4938

Packing Slip

NO. 383

Date: 1/15/2019 ✓
PO Ref: 041619 ✓
Ship via: Fedex Priority

Bill To:
Dart Aerospace
1270 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K7

Ship To:
Dart Aerospace
1271 Aberdeen St. Hawkesbury, ON
CANADA K6A 1K8

Qty	Item	Part No.
8 ✓	LOAD BEAM (S117994) 184313	C3-4-4K ✓
6 ✓	C2 LOAD BEAM (S124626) 185851	C2-4-4 ✓
6 ✓	LOAD BEAM (S074751) 177122	C3-4-4 ✓
5 ✓	LOAD BEAM (S085034) 179676	C3-4-4 ✓
4 ✓	LOAD BEAM (S117624) 184312	C2-4-4 ✓

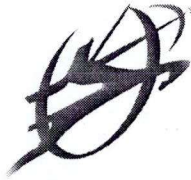
DAS
38
9-89

Received by: _____

Packaged by: _____

Checked by: _____

Thank You



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:041619

Dated: 1/15/19

Our Order / Job No: 041619-5AWT

Order Qty:5

Part Name: LOAD BEAM

Part Number C3-4-4

Lot Size: S085034 Ship Date: 1/15/19

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: C3-4-4 Rev:10

Material Size and Type: 4140 STEEL

Material Specifications: STEEL: ASTM A108, ASTM A29

Heat Treatment: N/A

Plating/Finish: N/A

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 1/15/19

Signed: Aemal m. Falt

DA
38
9-85

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com